

**Montana Board of Oil and Gas Conservation
Environmental Assessment**

Operator: Highline Exploration, Inc.

Well Name/Number: Rita Pratt 131-11

Location: SW NE Section 11 T1S R31E

County: Big Horn, **MT;** **Field (or Wildcat)** Toluca

Air Quality

(possible concerns)

Long drilling time: No, 2 to 3 days drilling time.

Unusually deep drilling (high horsepower rig): No, a small single derrick drilling rig to drill to 1145' TD.

Possible H2S gas production: None

In/near Class I air quality area: No, not in a Class I air quality area.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

☒ Air quality permit (AQB review)

☐ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: No special concerns – using single rig to drill to 1145' TD.

Water Quality

(possible concerns)

Salt/oil based mud: No, plan is to air drill the well.

High water table: No

Surface drainage leads to live water: Yes, closest drainage is an unnamed ephemeral drainage to Williams Coulee, about 430' to the northeast. Williams Coulee is located about 3 miles south and feeds into Peritsa Creek.

Water well contamination: No water wells within 1 mile. Surface casing will be set at 150'. Drilled with freshwater and freshwater mud. Surface casing will be run and cemented to surface from 150'. Total depth of this well will be 1145'.

Porous/permeable soils: No, silty sandy bentonitic soils.

Class I stream drainage: No

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

☐ Other: _____

Comments: 150' of surface casing cemented to surface adequate to protect freshwater zones.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No, stream crossings.

High erosion potential: No, cut or fill need. Small single self leveling rig will be used.

Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.

Unusually large wellsite: No, 100'X100' location size required.

Damage to improvements: No, surface use is cultivated land.

Conflict with existing land use/values: Slight

Mitigation

☐ Avoid improvements (topographic tolerance)

☐ Exception location requested

☒ Stockpile topsoil

☐ Stream Crossing Permit (other agency review)

☒ Reclaim unused part of wellsite if productive

☐ Special construction methods to enhance reclamation

☐ Other

Comments: Will use existing county freeway frontage road and existing ranch/well access road. Cutting will be buried in the earthen pits. Pits will be backfilled when dry. No special concern.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: No residences within 1 mile from this location.

The town of Hardin is about 11.5 miles to the southeast of this location.

Possibility of H2S: None

Size of rig/length of drilling time: Single drilling rig 2 to 3 days drilling time

Mitigation:

☐ Proper BOP equipment

☐ Topographic sound barriers

☐ H2S contingency and/or evacuation plan

☐ Special equipment/procedures requirements

☒ Other: Will use a diverter instead of a BOP. Due to the low pressure gas zone anticipated.

Comments: No concerns

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: None identified.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: Species identified as threatened or endangered is the Black-footed Ferret. Candidate species are the Greater Sage Grouse and the Sprague's Pipit. MTFWP Natural Heritage Tracker website indicates two (2) species of concern: Black-tailed Prairie Dog and the Greater Sage-Grouse.

Mitigation:

☐ Avoidance (topographic tolerance/exception)

☐ Other agency review (DFWP, federal agencies, DSL)

☐ Screening/fencing of pits, drillsite

☐ Other:

Comments: On private lands. No concerns

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites: None identified.

Mitigation

☐ avoidance (topographic tolerance, location exception)

☐ other agency review (SHPO, DSL, federal agencies)

☐ Other: _____

Comments: On private lands. No concerns.

Social/Economic

(possible concerns)

☐ Substantial effect on tax base

☐ Create demand for new governmental services

☐ Population increase or relocation

Comments: On private lands. No concerns

Remarks or Special Concerns for this site

Well is an 1145' Frontier (Belle Fourche) Formation test.

Summary: Evaluation of Impacts and Cumulative effects

No long term impact expected, some short term impacts will occur.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): John Gizicki

(title:) Compliance Specialist

Date: September 26, 2014

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website

(Name and Agency)

Water wells in Big Horn County

(subject discussed)

September 26, 2014

(date)

US Fish and Wildlife, Region 6 website

(Name and Agency)

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES
MONTANA COUNTIES, Richland County
(subject discussed)

September 26, 2014
(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)
Heritage State Rank= S1, S2, S3, T1S R31E
(subject discussed)

September 26, 2014
(date)

Montana Cadastral Website
(Name and Agency)
Surface Ownership and surface use Section 11 T1S R31E
(subject discussed)

September 26, 2014
(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____